



**SAULT FOREST MANAGEMENT UNIT  
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT # 164      ENTRY YEAR: 2007**

**Compartment Acreage: 1906      County: Mackinac**

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**Revision Date:** September 21, 2005

**Stand Examiner:** Steve Crigier

**Legal Description:** T43N-R8W Sections 6 & 7, Hudson Township; T43N-R9W Sections 1 & 12, Garfield Township; & T44N-R9W Section 36, Garfield Township.

**RMU (if applicable):**

**Management Goals:** Compartment 164 is located northeast of Naubinway on Hiawatha Trail (H-40) and is just east of Gilchrist. Achieving multi age class distribution across the compartment in the aspen/birch cover types will benefit certain wildlife values as well as sustainable fiber production. Due to the large amount of rivers and streams Best Management Practices will be followed to maintain the riparian areas, especially in the Black River corridor. In the southern portion of the compartment red pine will be managed for saw timber and utility poles.

**Soil and Topography:** The hardwood and pine sites that occur in the southern portion of the compartment are on level to rolling dunes of outwash and lake planes. These sites are made up of Wallace-Alcona complex and Wallace sand. The aspen and birch types with-in the compartment occur on depressions and nearly level areas on outwash plains and lake plains. Moltke loam and Spot-Finch complex are the most common soil in these areas.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** The compartment borders other state land to the south and the west. The north and east side of the compartment borders numerous small, non-residential, land owners.

**Unique, Natural Features (include only non-site specific and non-sensitive information):** The compartment has the potential to have various threatened and endangered species.

**Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):** Evidence of old dams used for floating logs on the Black River in the southern part of stand 101.

**Special Management Designations or Considerations:** In the riparian zones the BMP guidelines will be applied. Stand 137 will be managed for large tree aesthetics along the Black River.

**Watershed and Fisheries Considerations:** The Black River, Silver Creek, Barber Creek, and Kinney Creek are found in this compartment. The rivers in this watershed are cold-water trout streams that host a fish

community of brook trout, slimy sculpins, central mudminnows, northern redbelly dace, white suckers, and brook sticklebacks. The Black River also hosts runs of anadromous fish such as steelhead. This system of the Black River and its tributaries provides excellent spawning and nursery habitat for anadromous salmonids.

**Wildlife Habitat Considerations:** This compartment lies within the St. Ignace sub-subsection. The growing season last approximately 130 days. Extreme winter low temperature approaches  $-46^{\circ}$  F. Annual snowfall averages 100 inches.

The original surveyor's notes show that this area contained a diversity of tree species in the pre-settlement forest. The assemblage of tree species includes hemlock, white birch, yellow birch, sugar maple, black ash, aspen, elm, red maple, and cedar. Lowlands also contained spruce and tamarack. Wind throw, fire and beaver pond were the likely forms of natural disturbance.

Aspen appears to be more prevalent in today's forest than during pre-settlement times. Mixed hardwood/conifer stands appear to be less prevalent. Northern hardwood will be treated using a selection harvest that will maintain closed canopy as well as size and age structure diversity. This strategy will minimize canopy disturbance while still allowing timber harvest to occur. The predominantly birch stands to be clear cut are expected to result into a more diverse mixture of deciduous and coniferous species. Wildlife usage would then be expected to be similarly diverse. Likewise, the hardwood clear cut should experience a comparable outcome. These treatments will also improve age and structural diversity within this compartment.

Gray wolves are known to occur in this compartment. Wildlife species with the potential to benefit from the prescriptions include woodpeckers, black-capped chickadee, goshawk, ruffed grouse, white-tailed deer, American woodcock, and black bear.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Silurian Engadine and Manistique Groups subcrop below the glacial drift. The Engadine is quarried for stone/limestone nine miles to the northeast. Gravel pits are not located in the area and potential appears to be limited. There is no current economic oil and gas production in the UP.

**Vehicle Access:** The overall access to the compartment is quite limited do to the ground conditions and the Canadian National Rail Road. Hiawatha Trail (H-40) (paved county road) and Black River Road (gravel county road) provide the main access to the southern portion of the compartment with good logging roads to provide additional access. The far northern portion of the compartment has to be accessed through a private road off the North Black River Rd, permission is required. The northwest portion of the compartment can be accessed through a logging road off the Cranberry Lake Road.

**Survey Needs.** Section 36 W1/4 corner and center of section. Section 7 needs the west and the center 1/4 corner. Also the South 1/16 corner, common to Sec 7 and 12, maybe needed and the south west 1/16 corner. In section 36 the west 1/4 corner and the center section corner are needed; the south 1/16 and the south east 1/16 are needed, if access is obtained.

**Recreational Facilities and Opportunities:** The Black River provides the public with excellent trout fishing during the summer months. The woods roads provide access for all types of hunting and camping.

**Fire Protection:** The southern portion of the compartment is drier and is used more heavily by the public and therefore; has a higher potential for ignition. The northern half has limited access and has a deeper organic layer to burn into.

## **Additional Compartment Information:**

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
  - ◆ **Cover Type by Age Class**
  - ◆ **Cover Type by Management Objective**
  - ◆ **Compartment Volume Summary**
  - ◆ **Proposed Treatments – No Limiting Factors**
  - ◆ **Proposed Treatments – With Limiting Factors**
  
- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - ◆ **Base feature information, stand numbers, cover types**
  - ◆ **Proposed treatments**
  - ◆ **Proposed road access system**
  - ◆ **Suggested potential old growth**

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Michigan Department of Natural Resources - Operations Inventory System  
Individual Compartment Report

LAKE SUPERIOR STATE FOREST

SAULT STE. MARIE MGT. UNIT

MACKINAC COUNTY

COMPARTMENT: 164

Table 3

(acres shown in boxes)

STAND AGE CLASS

COVER TYPE	Not Coded	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150-159	All Aged	Total
Aspen		163	172	87	21	44			18										505
Black Spruce										63									63
Bog or Marsh	48																		48
Grass	57																		57
LowInd Brush	362																	1	363
LowInd Poplr									29										29
Marsh	25																		25
Mx Swmp Cnfr								13	20	29	11								73
Non Stocked	25																		25
Paper Birch								58	210	18									286
Red Pine		52	34					65	26										177
Spruce Fir					23	54			12	9									98
Swamp Hrdwds																		9	9
Treed Bog	17																		17
Upland Brush	1																		1
Upland Hdwds			9						33									80	122
White Pine																		8	8
<b>Total</b>	<b>535</b>	<b>215</b>	<b>215</b>	<b>87</b>	<b>44</b>	<b>98</b>		<b>136</b>	<b>348</b>	<b>119</b>	<b>11</b>							<b>98</b>	<b>1906</b>

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Michigan Department of Natural Resources - Operations Inventory System  
Individual Compartment Report

LAKE SUPERIOR STATE FOREST

SAULT STE. MARIE MGT. UNIT

MACKINAC COUNTY

COMPARTMENT: 164

Table 3A

(acres shown in boxes)

MANAGEMENT OBJECTIVE TYPE

COVER TYPE	A	S	V	C	G	H	J	I	L	P	N	Q	X	O	B	R	K	Y	F	E	T	D	U	M	Z	W	Total
A Aspen	505																										505
S Black Spruce		63																									63
V Bog or Marsh			48																								48
G Grass					57																						57
L LowInd Brush									363																		363
P LowInd Poplr										29																	29
N Marsh											25																25
Q Mx Swmp Cnfr												73															73
X Non Stocked													25														25
B Paper Birch	182														104												286
R Red Pine															168									9			177
F Spruce Fir	6																		92								98
E Swamp Hrdwds																				9							9
D Treed Bog																							17				17
U Upland Brush															1												1
M Upland Hdwds	33																							89			122
W White Pine																										8	8
Total	726	63	48		57				363	29	25	73	25		104	169			92	9		17		98		8	1906

LAKE SUPERIOR STATE FOREST

SAULT STE. MARIE MGT. UNIT

MACKINAC COUNTY

COMPARTMENT: **164**

**Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS**

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	8350 Cds	Hardwood	4889 Cds
Hardwood	172 Mbf	Hardwood	75 Mbf
Softwood	4018 Cds	Softwood	2031 Cds
Softwood	926 Mbf	Softwood	599 Mbf
Sum TotVol	14564 Cds	Sum CutVol	8268 Cds
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	439
1906			

**SAULT STE. MARIE MGT. UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 164** Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
15	B6	70	72	60	aspen (upland)	mature	final harvest	1		
comnts Fmd : Clear cut, will need corners for north line. Leave W. Pine, and buffer river 150'. Stand is heavy to aspen on the ridges. Stand will regenerate to mixed species, with aspen dominating.										
26	M6	31		65	northern hardwood	two aged	shelterwood-seed	1		
comnts Fmd : Was an experiment in strip cuts. Cut everything left in the the strips except W. Pine and Hemlock										
60	B6	70	70	80	aspen (upland)	mature	final harvest	1		
comnts Fmd : Access from the north st#26. Stand will regenerate to mixed spp. Mostly aspen										
71	B6	14	70	80	paper birch	mature	final harvest	1		
comnts Fmd : Birch on high ground spruce in the low. Stand will regenerate to mixed spp, mostly aspen.										
88	A6	11	70	80	aspen (upland)	mature	final harvest	1		
comnts Fmd : Leave W. Pine. Will regenerate to mixed spp. Mostly aspen.										
93	R9	9	75	60	northern hardwood	mature	final harvest	1		
comnts Fmd : Leave W. Pine										
102	M6	3		60	northern hardwood	unevenaged	selection	1		
comnts Fmd : Thin out poor quality poles to 70sqft/acre and take out softwood component.										
103	B6	1	68	65	paper birch	mature	final harvest	1		
104	B6	10	68	65	paper birch	mature	final harvest	1		
comnts Fmd : Buffer river and will need culvert at stream on the south end. Stand will regenerate to mixed spp, mostly aspen.										
109	M6	37		60	northern hardwood	unevenaged	selection	1		
comnts Fmd : Last thinned in 89. Thin to 80sqft/ac										
113	B6	9	81	70	aspen (upland)	mature	final harvest	6		
comnts Fmd : Under contract 'Black River Blues' Will regenerate to mixed spp, mostly aspen.										
115	B6	9	81	70	aspen (upland)	mature	final harvest	6		
comnts Fmd : Under contract 'Black River Blues' Will regenerate to mixed spp. Mostly aspen.										
122	S6	12	80	30	black spruce-swamp	mature	final harvest	1		
comnts Fmd : Should be able to cut, leave W. pine and cedar										
124	M6	33	68	65	aspen (upland)	mature	final harvest	1		
comnts Fmd : Clearcut, buffer Cr. 50-100'. Patches of B6 throughout. Some small V0 also (winter ground). Leave W. pine. Will get mixed spp back MO is = B, F, A, M										
127	R9	3	75	60	red pine	mature	seed tree	1		
comnts Fmd : Seed tree to 30sqft/ac. Try to get whole tree skidding system. Hopefully will R. Pine will take.										
129	R3	52	0	60	red pine	immature		0	release	
comnts Fmd : R3 6-8" tall planted in 02, fair amount of aspen in South eastern portion might need spraying. Also monitor for Sawfly damage!										
137	R9	16	65	60	red pine	mature	thinning	1		
comnts Fmd : Thin to 120 sqft/ac										
138	R9	49	65	60	red pine	mature	final harvest	1	planting	
comnts Fmd : Clearcut, burn, trench and plant. Run west line along bottom of ridge ( on the east side)										

**SAULT STE. MARIE MGT. UNIT**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 164**    **Entry Year: 2007**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
<b>139</b>	<b>U0</b>	1		60	red pine	nonstocked		0	planting	
comnts Fmd : Cultivate with stand 138										
<b>410</b>	<b>G0</b>	10			grass	nonstocked		0	opening maintenance	
comnts Fmd : Filling in with spruce birch and jack pine. Not enough fuel to burn. Treat when 109 is harvested										
<b>422</b>	<b>G0</b>	1			grass	nonstocked		0	opening maintenance	
comnts Fmd : Treat with stand 15										
<b>435</b>	<b>G0</b>	26			grass	nonstocked		0	opening maintenance	
comnts Fmd : Some knols of soft maple. Might be worth burning. Some thick patches of blue and black berries										
<b>445</b>	<b>G0</b>	1			grass	nonstocked		0	opening maintenance	
comnts Fmd : Use as landing when stand 44 is harvested.										
<b>447</b>	<b>G0</b>	10			grass	nonstocked		0	opening maintenance	

**Total Acres..... 488**

**SAULT STE. MARIE MGT. UNIT**

**Proposed Treatments  
With Limiting Factors**

**Compartment: 164**    Entry Year: 2007

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD/ Status
<b>7</b>	<b>Q5</b>	11	88	35	mixed swamp conifer	sparse	final harvest	3		

TREATMENT LIMITING FACTORS: Adjacent landowner denies access

comnts Fmd : Not enough volume and too wet to cut

<b>32</b>	<b>B6</b>	23	70	70	aspen (upland)	mature	final harvest	1		
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TREATMENT LIMITING FACTORS: Adjacent landowner denies access

comnts Fmd : Need permission to use Private road. Will also need corners placed on the north end. Leave white pine and buffer the creek and river.

<b>33</b>	<b>F5</b>	6	45	50	aspen (upland)	mature	final harvest	1		
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TREATMENT LIMITING FACTORS: Adjacent landowner denies access

comnts Fmd : Cut with 32 need permission for access on private road and will need corners placed.

<b>41</b>	<b>S5</b>	2	80	45	black spruce-swamp	mature	final harvest	3		
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TREATMENT LIMITING FACTORS: Too wet

<b>66</b>	<b>F6</b>	9	81	60	spruce-fir (uplands- including upland black spruce)	mature	final harvest	3		
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TREATMENT LIMITING FACTORS: Blocked by other physical obstacle

comnts Fmd : Would be nice to cut, access is an issue

<b>87</b>	<b>B5</b>	1	70	80	aspen (upland)	mature	final harvest	3		
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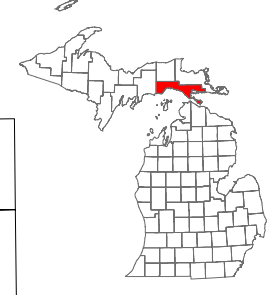


TREATMENT LIMITING FACTORS: Too wet

**Total Acres..... 52**

Compartment 164  
 T43N, R8W, Sec. 6, 7  
 T43N, R9W, Sec. 1, 12  
 T44N, R 9W, Sec. 36  
 County: Mackinac  
 Unit: Sault Ste. Marie  
 YOE: 2007  
 Acres: 1,906 GIS Calculated  
 Stand Examiner: Steve Crigier  
 Map Revised: 9/26/2005  
 Map Phase: Pre-review

# Field Map

36	
1	6
12	7

**Legend**

- RLS Corners
- GPS Corners
- Miris Corners
- Paved Roads
- Gravel Roads
- Poor dirt roads
- Railroads
- Water Features
- Stand Boundary
- 017 - Planting/Prescribed Burning
- 026 - Opening Maintenance
- 027 - Opening Maintenance/Prescribed Burning
- 052 - Release/Aerial Application
- 100 - Final Harvest
- 117 - Final Harvest/Planting/Prescribed Burning
- 200 - Seed tree
- 300 - Shelterwood-seed
- 400 - Thinning
- 800 - Selection

**Name Paved Roads**  
**Name Water Features**

